DOCUMENT RESUME

ED 243 284 EC 162 189

AUTHOR Tomlin, Judy G.; And Others
TITLE An Investigation of Listening and Reading Skill Development in Mildly Handicapped Children.
PUB DATE Nov 83
NOTE 15p.; Paper presented at the Annual Meeting of the Mid-South Educational Research Association (Nashville, TN, November 16, 1983).
PUB TYPE Speeches/Conference Papers (150) -- Reports - Research/Technical (143)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *Learning Disabilities; Learning Modalities; *Listening Skills; *Mild Mental Retardation; *Reading Skills; Student Characteristics
IDENTIFIERS Durrell Listening Reading Series

ABSTRACT

To determine if patterns of listening and reading skill development in mildly handicapped children differed markedly from those of non-handicapped children, 180 learning disabled (LD), educable mentally retarded (EMR), and nonhandicapped (NH) children from rural and urban settings were given the Durell Listening-Reading Series. A multivariate analysis of variance was conducted to determine the developmental patterns of listening and reading skills as a function of label and residence. Findings supported the contention that EMR and LD Ss differed in reading and listening performance as indicated by scores on the Durrell Listening-Reading Series. LD scored higher than EMR Ss on listening scores, although both groups scored significantly lower than the NH Ss. In reading, LD Ss' scores were more similar to EMR Ss than to the NH Ss. Data suggested that aural presentations may be preferable to visual ones for LD and EMR students. There was no relationship between Ss' place of residence and listening and reading skill. (CL)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
✓ This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.
• Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.

ED243284

An Investigation of Listening and Reading Skill Development in Mildly Handicapped Children

Judy G. Tomlin

Joseph A. Buckhalt

Thomas A. Wood

Auburn University

Paper presented at the Annual Meeting of the Mid-South Educational Research Association

Nashville, Tennessee

November 16, 1983

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

Judy Tomlin

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

EC162189

INTRODUCTION

For a number of years, educators have been investigating which modes of presentation are most effective in helping children to learn. A number of studies have concentrated on the importance of listening and reading skills as related to academic success (Orlando, 1973; Duker,1971); while others have investigated the variables related to the relative effectiveness of the auditory and visual modes of presentation (Duker, 1971). The results of several research studies have indicated that the level of development of listening and reading skills may differ among children as a function of several characteristics (Brassard, 1968; Hampleman, 1955; Plesas, 1963). For example, Brassard (1971) found that oral vs. visual presentations may be effective modes of learning for different types of children at various developmental stages.

Although a number of listening and reading studies have focused on the handicapped (de Hoop, 1965; Friedman, 1959; Spicker, 1964; Sticht, 1968), none has investigated the development of listening and reading skills in the mildly retarded as compared with the learning disabled. In addition to the research on non-handicapped, a few research studies have compared the relative efficiency of listening and reading as learning modes with select subjects and variables such as visually handicapped children (Morris, 1966; Nolan, 1966), comprehension across learning modes (Tuttle, 1972), and the effectiveness of listening versus reading with visually handicapped children of low mental abiity (Steele, 1969).

Little attention, however, has been directed toward determining which variables affect the development of listening and reading skills in handicapped children or the developmental patterns of these skills. The documentation of a predictive relationship between variables such as age, intelligence, class placement or sex and the development of listening and reading skills in given groups could provide the teacher with an additional source of information for decision making regarding an educational approach. Furthermore, data on these skills could be useful in providing an early warning of potential deficiencies in the development of these skills. The utilization of such information in planning remedial activities could assist in the amelioration of deficiencies in these skills, which, it has been recognized, are closely associated with academic success (Durrell, 1969).

Purpose

The primary purpose of this study was to determine if the patterns of listening and reading skill development in mildly handicapped children differs markedly from those of non-handicapped children. This study compared the listening and reading skill patterns of (a) children with the diagnostic label of Learning Disabilities (LD) to non-handicapped children (NH); (b) children with the diagnostic label Educable Mentally Retarded (EMR) to non-handicapped children (NH); and (c) children with the Learning Disabilities label to children with the Educable Mentally Retarded label. In addition, several variables were examined across all subjects. These variables included the effects of tested verbal intelligence, rural vs. urban residence, age and sex on the development of listening and reading skills.

Specifically the following research questions were posed:

1). Do EMR, LD and Non-handicapped students differ in Listening and Reading Skills?

2). Does urban or rural residence correlate with Listening or Reading Skill?

3). What factors predict Listening and Reading Skill Level in EMR, LD and non-handicapped students?

METHOD

Subjects

The subjects in the study were selected based on special education class placement, regular education class placement, or resource room placement. Due to the number of subjects needed, the geographical spread and expenses involved, it was not practical to randomly select subjects individually. Nonhandicapped subjects and those with the Learning Disability label ranged in chronological age from 9 to 12 years. Those subjects with the Educable Mentally Retarded label were in the 12 to 15 year age range in an attempt to match approximately by group for mental age. The total number of subjects selected to conduct this study was 180. Subjects were selected so that each category (i.e., LD, EMR, NH) contained 30 subjects from a rural setting and 30 from an urban setting (30 x 3 x 2 = 180).

Instrumentation

The primary instrument utilized in this investigation was the Durrell Listening-Reading Series (DLRS). The authors of the DLRS, Durrell and Brassard (1970), state the nature and purpose of the instrument as follows: "The Durrell Listening Reading Series is designed to provide a comparison of children's reading and listening abilities. Its purposes are to identify children with reading disabilities, to measure the degree of retardation in

reading disabilities and to measure the degree of retardation in reading as compared to listening. Knowledge of discrepancies between a child's understanding of spoken language and of printed words is basic to analysis of reading disabilities and diagnosis of remedial needs" (p. 3).

The DLRS is available in two equivalent forms (DE and EF) and at three levels: Primary (for Grades 1 -3.5); Intermediate (for Grades 3.5 -6); and Advanced (for Grades 7 -9). The description which follows will be limited to the intermediate level of the DLRS since this level was employed as the main assessment instrument in this study.

The listening section of the DLRS is administered orally. For the Vocabulary Listening Test (Test I), four key words are printed across the top of the page under a picture which graphically represents the key word. For example, the word "house" might be printed with a picture of a house just above it. The examiner first reads the key words then a series of words which the student must match to one of the key words.

The Paragraph Listening Test (Test II) requires the student to listen to a short paragraph and then respond to statements presented orally by the examiner regarding the content of the paragraph. For each statement the student must respond by selecting one of four phrases which most closely parallels the statement. The statements are: (a) True only of_____; (b) True only of _____; (c) True of both; and (d) Answer is not given.

The reading section (Tests III and IV) of the DLRS is almost identical to the listening section in format. The Vocabulary Reading Test provides the student with a column of words to read which he must match to the key words and pictures presented across the top of the page. For the Paragraph Reading Test, the student reads a paragraph and then reads and responds to the four

statements regarding the content just as was required for the Paragraph Listening Test.

The total test requires approximately 85 minutes administration time, and the manual recommends two separate testing sessions rather than giving the entire test in one administration. For both sections and all four subtests, the student responds by darkening in a block with his pencil to indicate his answer. A machine scorable answer sheet is also available.

The test manual provides tables which convert raw scores into age equivalents, grade equivalents, percentiles, and stanines for both listening and reading performance. Also provided in the manual is a section on the interpretation of test results and recommendations for using the test results in educational programming.

Procedure

The subjects in this study were tested in group settings with the DLRS. In addition, all subjects were tested with the Wepman Auditory Discrimination Test and the Visual Motor Integration Test. The purpose of administering these tests was to screen out subjects with severe auditory or visual perceptual problems. Those subjects without a verbal intelligence score on file were administered the Wechsler Intelligence Scale for Children-Revised (WISC-R) by a qualified examiner.

Additional information was collected as follows:

1. Age was represented as actual chronological age in months for each subject.
2. Residence as urban or rural (over 100,000 or less than 25,000 population).
3. Sex was recorded as male or female.

The primary method of data analysis consisted of an overall multiple regression analysis and step-wise regression analysis to determine the relationship between the predictor variables and the two dependent variables; listening and reading. A multivariate analyses of variance (MANOVA) was conducted to determine the developmental patterns of listening and reading skills as a function of label (i.e., LD, EMR, NH) and residence (urban or rural).

RESULTS

Since the two dependent variables, Durrell Listening and Durrell Reading scores, were thought to be related, a Multivariate Analysis of Variance was performed, with the independent independent variables being educational label and place of residence. Mean grade equivalents may be found in Table 1. The main effect

---

Insert Table 1 about here

---

for educational label was significant, $F(4,350)= 80.55$; $p<.01$ and univariate ANOVAs resulted in significance for both reading $F(2,175)= 130.35$; $p<.01$) and Listening $F(2,175)= 119.84$, $p<.01$). Scheffe post-hoc comparisons showed that for Listening, nonhandicapped children had higher grade equivalents ($M= 5.85$) than learning disabled children ($M= 4.32$) who in turn had higher scores than mentally retarded children ($M= 3.17$). For Reading, nonhandicapped children's scores ($M= 5.38$) were significantly higher than those of the other two groups, but the scores of the learning disabled ($M= 3.09$) and mentally retarded ($M= 2.66$) did not differ from each other. Neither the main effect for place of

residence nor the two-way interaction of label and residence reached significance.

To determine what factors predict reading and listening skill level in these groups, a series of multiple regression analyses were performed with Durrell Listening and Reading scores as criterion variables. Predictor variables were educational label, place of residence, age, sex, VMI score, Wepman score, and WISC-R Verbal IQ. First, overall Multiple R's for all subjects were derived for Durrell Listening (R= .83; p<.01) and Reading (R = .83; p<.01). For both variables, Beta weights were highest for educational label, followed by WISC-R Verbal IQ, age, and VMI scores. Beta weights were lowest for sex, place of residence, and Wepman scores.

Separate multiple regression analyses were then performed for each group. Multiple R's and Beta weights are depicted in Table 2. For the

---

Insert Table 2 about here

---

nonhandicapped group on Listening, a Multiple R of .66 (p<.01) was obtained. WISC-R Verbal IQ had a Beta weight of .73 (F = 31.40; p<.01), age had a Beta weight of .34 (F= 4.00; p<.01) and no other factors contributed significantly to the prediction. For the same group on Reading, a Multiple R of .72 (p<.01) was obtained. Again, only WISC-R Verbal IQ (Beta weight= .63; F= 26.67; p<.01) and age (Beta weight= .61; F= 14.67, p<.01) were significant.

For the LD group, Multiple R's for Listening (R= .60, p<.01) and Reading (R= .58, p<.01) were significant, but Beta weights were much smaller for WISC-R Verbal IQ and age, variables which predicted well for the nonhandicapped group. For the EMR group, the Multiple R (R= .69; p<.01) for

Listening was significant, but the Multiple R for reading (R= .50) was not significant. As in the LD group, Beta weights were of smaller magnitude when compared with the nonhandicapped group.

CONCLUSION

The findings of this study support the contention that children with an educational classification of Educable Mentally Retarded (EMR) or Learning Disabilities (LD) differ in reading and listening performance as indicated by scores on the Durrell Listening Reading Series. With regard to reading, the LD subject scores were more similar to the EMR subjects than to the non-handicapped (NH) subjects. For listening scores, LD subjects scored higher than EMR subjects ,although both groups scored significantly lower than the non-handicapped group. The implications for educational programming suggest that aural presentations may by preferable to visual presentations for LD and EMR students with aural presentation being more efficient for LD students.

The results of the multiple regression analyses showed that Listening and Reading scores on the DLRS can be predicted, for non-handicapped children, using a combination of verbal intelligence scores and age. For the LD and EMR subjects, there were no predictor variables which reached significance.

It is somewhat interesting to note that no relationship existed between a subjects place of residence (urban or rural) and listening and reading skill performance. Caution must be exercised in generalizing from these results, however, since the subjects were from two southern school systems and the sample was not a purely random one. Also, the subjects were placed in a classification according to school system records. While none of the LD subjects included in the study appeared to have neurological deficits and therefore would not be considered to have a specific learning disability

according to the classical definition, they are probably typical of children found in classes for the learning disabled. Further research is needed to document the differences between these groups of children in younger and older age groups.

Table 1

Mean Scores for Verbal IQ (WISC-R), Listening Scores and Reading Scores by Sex, Age, Classification and Geographical Location

	M	F	Age	IQ	Listening	Reading
			NonHandicapped			
Rural	10	19	12-1	91.3	5.83	5.49
Urban	19	11	10-7	101.6	5.86	5.26
Total	29	30	11-4	96.4	5.85	5.38
			Educable Mentally Retarded			
Rural	19	11	13-6	69.8	3.05	2.37
Urban	11	18	13-7	63.3	3.29	2.94
Total	30	29	13-6	66.5	3.17	2.65
			Learning Disabilities			
Rural	25	5	11-4	88.5	3.98	2.84
Urban	26	7	11-3	89.8	4.65	3.33
Total	51	12	11-3	89.2	4.32	3.09

Table 2

Results of Multiple Regression Analyses

	Nonhandicapped		LD		MR	
	Listening	Reading	Listening	Reading	Listening	Reading
Multiple R	.66*	.71*	.60*	.58*	.69*	.50
Beta Weights						
VMI	-.00	.03	.22*	.26*	.46*	.19
Wepman XX	-.10	-.26*	-.13	.05	.09	.11
Wepman YY	-.08	-.10	.00	.04	-.03	-.14
WISC-R Verbal IQ	.73*	.62*	.24*	.18	.34*	.12
Sex	.01	.03	.15	.21*	.03	.12
Age	.34*	.61*	.25*	.29*	.20*	.08
Residence	.10*	.04	.25*	.22*	.29*	.37*

* $p < .01$

REFERENCES

Brassard, M. B. (1968). Listening and reading comprehension in intermediate grades. Unpublished doctoral dissertation, Boston University.

de Hoop, W. (1965). Listening comprehension of cerebral palsied and other crippled children as a function of two speaking rates. Exceptional Children, 31, 223-240.

Duker, S. (1971). Listening: Readings. Vol. 2. Metuchen, N.J.: Scarecrow Press.

Durrell, D. D. (1969). Listening comprehension versus reading comprehension. Journal of Reading, 52, 455-460.

Friedman, R. M. (1959). A comparative study of the retention level of verbal material presented visually and orally: Fifth grade pupils. Garden City, N.Y.: Adelphi College.

Hampleman, R. S. (1955). Comparison of listening and reading comprehension ability of fourth and sixth grade pupils. Unpublished doctoral disseration, Indiana University.

Morris, J. E. (1966). Relative efficiency of reading and listening for braille and large type readers. Conference Report. Washington, D.C.: American Association of Instructors of the Blind, Washington, D.C.: 65-70.

Nolan, C. Y. (1966). Reading and listening in learning by the blind. Progress Reports. Louisville, KY: American Printing House for the Blind.

Orlando, C. P. (1973). Review of the reading research in special education. In L. Mann and D. A. Sabatino (Eds.), The first review of special education, Philadelphia, PA: JSE Press.

Plessas, G. P. (1963). Reading abilities and intelligence factors of children having high and low auditing abilities. Elementary School Journal, 63, 223-226.

Spicker, H. H. (1964). Listening comprehension and retention of normal and retarded children as functions of speaking rate and passage difficulty. Dissertation Abstracts, 24, 19-25.

Steele, N. W. (1969). Learning by blind children of low ability: The relative effectiveness of reading and listening. Unpublished doctoral disseration, George Peabody College.

Sticht, T. G. (1968). Some relationships of mental aptitude, reading ability and listening ability using normal and time compressed speech. Journal of Communication, 18, 243-258.

Tuttle, D. W. (1972). A comparison of three reading media for the blind. Education of the Visually Handicapped, 4, 40-44.